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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,177

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206,383

1657

7590
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06/25/2007

EXAMINER

KERNS, KEVIN P

ART UNIT

PAPER NUMBER

1725

MAIL DATE

DELIVERY MODE

06/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/735,177

Applicant(s)

GROPALLO, FRANCESCO

Examiner

Kevin P. Kerns

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006 and 22 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-15 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/22/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The examiner acknowledges the applicant's Information Disclosure Statement (IDS) received by the USPTO on March 22, 2007, and a copy is provided with this Office Action. However, the IDS is incomplete since it does not include a list of references and search report under "Foreign Patent Documents". Despite this, the examiner has considered the search report and references -- with the exception of EP 1 428 603 ("E" reference in search report), in which no copy was received. The remaining six references (4 foreign patents and 2 non-patent literature references) in the search report were received and considered. In this instance, the applicant is advised to send a copy of EP 1 428 603 and another copy of the IDS dated March 22, 2007 in the next communication, such that complete consideration would be obtained at that time.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4, 6-12, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said hole". There is insufficient antecedent basis for this limitation in the claim.

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 6-8, 10, 12, and 18 insofar as definite (without a complete translation of the German document) are rejected under 35 U.S.C. 103(a) as being unpatentable over Martucci et al. (US 3,496,629) in view of Hamberger (DE 198 23 635 – cited in the search report of the IDS dated March 22, 2007).

Martucci et al. teach a brazing process to join two metal parts, at least one part being tubular 10, the other being a tubular manifold 14, by positioning a preformed brazing filler metal 12 in a groove in one of the parts, aligning the parts such that the end of the tube is inserted a predetermined distance, and heating the parts in a furnace (figures 1-3 and col 1 line 61 – col 2 line 27) to form a radiator (heat exchanger, col 1 lines 25-31). Although there is no disclosure of the distance into the hole, it would have been obvious to one of ordinary skill in the art at the time of the invention that the depth to which the tube is inserted into the hole is a design factor based on tube size and finished article size, and is typically chosen such that a minimal amount of tubing is inserted while maintaining a strong, reliable joint. Martucci et al. do not teach that filler metal is positioned within an internal cavity of the tubular metal part.

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However, Hamberger discloses a method of fabrication of tubular metal radiator parts provided by joining via a press/solder connection (Figure 1), in which the method includes providing a tube 2 (Figure 3) with tapered portions (3,8), and providing solder rings (to become filler metal upon heating) on respective internal cavities (apertures 6 and recesses 7) of one of the tubular metal parts, such that the filler metal positioned within an internal cavity of the tubular metal part is advantageous for obtaining a precise fit into recesses while being simultaneously deburred upon heating of the internal cavity (abstract; column 1, lines 16-20 and 55-68; column 2, lines 1-4; column 3, lines 14-23 and 29-39; column 5, lines 52-57 of German document – taken in reference to the search report provided in the IDS of March 22, 2007; and Figures 1-7).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the brazing process disclosed by Martucci et al., by using filler metal positioned within an internal cavity of one of the tubular metal parts, as taught by Hamberger, in order to obtain a precise fit into recesses while being simultaneously deburred upon heating of the internal cavity (Hamberger; abstract).

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martucci et al. (US 3,496,629) in view of Hamberger (DE 198 23 635), as applied to claims 1 and 3 above, and further in view of Conn et al. (US 5,360,158).

Martucci et al. (in view of Hamberger) disclose and/or suggest the features of claims 1 and 3. Neither Martucci et al. nor Hamberger discloses a preform formed from a folded wire.

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However, Conn et al. teach a brazing process to join two metal parts, at least one part being tubular by positioning a coated brazing ring formed of shaped wire 26 on one of the parts 12, aligning the parts, and heating the parts in a furnace (figures 1 and 4, col 1 lines 10-15, col 2 lines 10-26, col 7 lines 33-56, col 8 lines 27-36 and col 10 line 51 – col 11 line 5). It would have been obvious to one of ordinary skill in the art at the time of the invention that a folded wire is an obvious variation of a ring filler.

Allowable Subject Matter

7. Claims 13-15 are allowed.
8. Claims 9 and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. The examiner acknowledges the applicant's amendment and Information Disclosure Statement (IDS) received by the USPTO on December 22, 2006 and March 22, 2007, respectively. The applicant is referred to above section 1 regarding the IDS, which was not fully considered. A new 35 USC 112, 2nd paragraph rejection has been raised by an amendment to independent claim 1 (see above section 3). Allowable subject matter remains, but claims 9 and 11 are now dependent upon independent claim 1 (rejected under 35 USC 112, 2nd paragraph). The applicant has cancelled claim 19. Claims 1-4, 6-15, and 18 are currently under consideration in the application.

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10. Applicant's arguments with respect to claims 1-4, 6-8, 10, 12, and 18 have been considered but are moot in view of the new ground(s) of rejection.

It is noted that the newly applied reference (DE 198 23 635) under 35 USC 103(a) has been provided in the applicant's search report and IDS provided with a fee. In addition, the applicant has amended independent claim 1 to the degree where new grounds of rejection were necessitated by amendment (see above sections 5 and 6).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jonathan Johnson can be reached on (571) 272-1177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns *Kevin Kerns 6/21/07*
Primary Examiner
Art Unit 1725

KPK
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June 21, 2007